

REMARKS

Reconsideration of the present application in view of the foregoing amendments and the following remarks is requested respectfully.

Claims 12-19 are presented. Claims 18 and 19 have been added, claims 12, 15 and 17 have been amended, and no claims have been canceled. Support for claims 18 and 19 is found in the specification at page 11, lines 3-7.

I. THE § 112 REJECTIONS

In the outstanding office action, claims 12, 15 and 17 stand rejected for an asserted failure to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Although the applicant does not necessarily accede to the correctness of the Examiner's position in this regard, the applicant has amended these claims to resolve certain of the perceived § 112 issues. More specifically, claim 12 has been amended to further define the fibers as arranged in contact with the composite yarns, and further defining the heating step to accomplish the attachment of the fibers to the sheath. The § 112 rejection concerning the asserted indefiniteness of the phrase "arrangement of fibers and composite yarns" has been rendered moot insofar as the relationship between the fibers and the composite yarns has been clarified by the amendment.

The § 112 rejection concerning the question of whether the applicant is describing a monofilament or multifilament configuration is respectfully traversed, as the applicant considers the question not pertinent to the patentability of claim 12. As indicated in the specification, the material comprising the core can be a monofilament or a multifilament. *See* Specification at page 10, lines 15-16. Accordingly, there is no need for claim 12 to specify a monofilament or multifilament construction. Further, the § 112 rejection regarding the use of

the word “arranging” is traversed respectfully. The applicant asserts that the term fabric is well known in the art, and that the term is positively recited in the preamble of claim 12.

The § 112 rejection concerning the use of the term “conventional” has been mooted by the amendments made to claims 15 and 17. Finally, the § 112 rejection of claim 17 relating to an asserted lack of antecedent basis to the phrase “the arrangement of fibers and composite yarns” has been addressed by the amendment offered above. Accordingly, all of the § 112 rejections have been either rendered moot by amendment or traversed as not pertinent to the patentability of the pending claims. The applicant requests respectfully that they be withdrawn.

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II. CLAIMS 9-15 DEFINE PATENTABLY UNOBTVIOUS SUBJECT MATTER

A. Summary Of The Claimed Invention

The presently claimed invention defines a method for forming a composite fabric comprising the steps of: 1) forming an arrangement of fibers in contact with composite yarns wherein the composite yarns comprise an elastomeric core and an elastomeric thermoplastic sheath disposed about the core wherein the melting point temperature of the sheath is at least about 10°C, preferably from about 50°C to about 75°C, lower than the melting point temperature of the core; 2) heating the arrangement of fibers and composite yarns to a temperature above that of the melting point temperature of the sheath of the composite yarns but below that of the melting point temperature of the core of the composite yarns whereby said fibers are attached to said sheath; and 3) cooling the composite fabric. In certain preferred embodiments, the methods comprises forming a woven pile fabric in which the ground warp yarns and the filling yarns comprise composite yarns which are interlaced with a pile of fibers.

The presently claimed invention uses a core-sheath configuration for the composite yarn component which configuration comprises two different elastomeric materials which differ in melting point temperatures by at least about 10°C, and preferably by at least about 50°C to about 75°C. An important aspect of the present invention is that in using such composite yarns, the heating step is controlled so that the fabric is heated to a temperature above that of the melting point temperature of the sheath **but below the melting point temperature of the core**. The composite elastomeric yarns of the present invention are particularly well suited for use in indoor and outdoor furniture fabrics for seats, both bottoms and backs, installed in various forms of ground transportation such as automobiles, motorcycles, trucks, buses, trains, etc., as well as various aircraft and marine craft.

B. The § 102 Rejection

Claims 12-15 and 17 stand rejected under 35 U.S.C. § 102(b) as being anticipated by JP 06-2240 issued to Imhose (the “Imhose patent”). This rejection is traversed respectfully.

The abstract of the Imhose patent (the full translation was not provided with the Office Action) discloses a pile woven upholstery fabric comprised of a base fabric and pile yarns woven into said base and bonded thereto. Importantly, the abstract of the Imhose patent neither teaches nor suggests a critical limitation of the claims of the present invention, namely, that the heating step be controlled so that the composite yarns are heated to a temperature **above** that of the melting point temperature of the sheath **but below** the melting point temperature of the core. This total lack of any teaching or suggestion of an upper temperature limit is echoed in the characterization of the Imhose patent as set forth in the Office Action. As a result, the Imhose patent cannot serve as the basis for a rejection under § 102(b). *See PPG Industries, Inc. v. Guardian Industries, Inc.*, 75 F.3d 1558 (Fed. Cir. 1996) (to

anticipate a claim, a reference must disclose every element of the challenged claim).

Moreover, the complete absence of any suggestion of such a limitation renders the Imhose patent similarly incapable of serving as the basis for a rejection under 35 U.S.C. § 103.

Accordingly, the applicant requests respectfully that the rejection of independent claims 12 and 17 under 35 U.S.C. § 102(b) based on the Imhose patent be withdrawn.

The balance of the pending claims rejected under 35 U.S.C. § 102 (claims 13-15) all depend from claim 12 and, as set forth above, claim 12 is patentable over the Imhose patent. On this basis alone, claims 13-15 are patentable. Accordingly, the applicant requests respectfully that the rejection of claims 13-15 under 35 U.S.C. § 102(b) based on the Imhose patent be withdrawn.

Moreover, with respect to new claims 18 and 19, the applicant notes that such claims are patentable insofar as they depend from claims 12 and 17 which are themselves patentable over the Imhose patent. Further, the Imhose patent neither teaches nor suggests a thermoplastic core. As a result, new claims 18 and 19 are patentable over the Imhose patent.

C. The § 103 Rejection

Claim 16 stands rejected under 35 U.S.C. § 103 as being unpatentable over the Imose patent in view of *Woven Pile Fabrics in the Automotive Industry*, Moulin and Van De Wiele (the “Moulin reference”). More specifically, the Examiner has stated that while the Imhose patent does not explicitly teach the pile weave in a “V” or “W” configuration, it is asserted that said configurations are well known in the art as demonstrated by the Moulin reference. Accordingly, the Examiner has asserted that it would have been obvious to one of ordinary skill in the art to employ either one of the claimed weave patterns. This rejection is traversed respectfully. Claim 16 depends from independent claim 12 and, as set forth above, claim 12 is

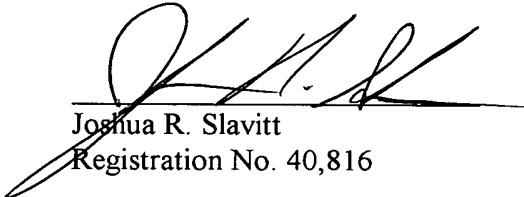
patentable over the Imhose patent. On this basis alone, claim 16 is patentable. Accordingly, the applicant requests respectfully that the rejection of claim 16 under 35 U.S.C. § 103 based on the Imhose patent and the Mouin reference be withdrawn.

III. CONCLUSION

In view of the foregoing amendments and remarks, favorable reconsideration and prompt Notice of Allowance of all of the pending claims are requested respectfully.

Should the Examiner continue to have any doubts as to the allowability of any of the claims, she is requested respectfully to telephone the applicant's undersigned attorney to discuss same before issuing further action, as it is believed such discussion would help to expedite the prosecution of this application.

Respectfully submitted,



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Version with Markings to Show Changes Made

12. (Amended) A method of making a composite fabric comprising the steps of: forming an arrangement of fibers in contact with [and] composite yarns wherein the composite yarns comprise an elastomeric core and an elastomeric thermoplastic sheath disposed about the core wherein the melting point temperature of the sheath is at least about 10°C lower than the melting point temperature of the core;

heating the arrangement of fibers and composite yarns to a temperature above that of the melting point temperature of the sheath of the composite yarns but below that of the melting point temperature of the core of the composite yarns whereby said fibers are attached to said sheath; and

cooling the composite fabric.

15. (Amended) The method of claim 12 wherein the forming step comprises pile weaving whereby ground warp yarns and filling yarns comprising the composite yarns are interlaced with a pile of [conventional] fibers.

17. (Amended) A method of making a composite pile fabric comprising the steps of:

forming an arrangement of composite yarns as ground warp yarns and filling yarns and [conventional] yarns as pile wherein the composite yarns each comprise an elastomeric core and an elastomeric thermoplastic sheath disposed about the core wherein the melting point temperature of the sheath is at least about 50°C to about 75°C lower than the melting point temperature of the core;

heating the arrangement of [fibers] yarns and composite yarns to a temperature above that of the melting point temperature of the sheath of the composite yarns but below that of the melting point temperature of the core of the composite yarns; and

cooling the composite fabric.